CLAIMS

1. A fibrous active carbon having pores in the surface, characterized in that the pore diameter falls within a range of 0.1 to 200 nm, and, the active carbon is in the form of a fiber, and has a fiber diameter of less than 1000 nm.

2. The fibrous active carbon according to claim 1, wherein the ratio of the specific surface area of the pores with a pore diameter of 2 nm or more and the total specific surface area of the fibrous active carbon is 0.3 or more.

3. The fibrous active carbon according to claim 1, wherein the total specific surface area falls within a range of 100 to 50000 m^2/g.

4. The fibrous active carbon according to claim 1, wherein the volume of pores with a pore diameter of 2 to 5 nm is 40 % or more of the total pore volume.

5. A nonwoven fabric comprising the fibrous active carbon according to claim 1.

6. An electric double layer capacitor comprising the fibrous active carbon according to claim 1 mounted therein as an electrode material.

7. A material for a fuel cell electrode comprising the fibrous active carbon according to claim 1, and a metal

carried therein in the form of fine particles with an average particle diameter of 0.5 to 500 nm.

8. A fuel cell comprising the material for a fuel cell electrode according to claim 7 mounted therein.

9. A method for manufacturing a fibrous active carbon, comprising a stage of manufacturing a starting material solution of a fibrous active carbon dissolved in a solvent, a stage of spinning the solution with the electrostatic spinning method, a stage of manufacturing a precursor of a fibrous active carbon accumulated on a collecting substrate by the spinning, and a stage of burning the precursor, and then, subjecting it to an activation treatment to obtain a fibrous active carbon.

10. The manufacturing method according to claim 9, wherein the activation treatment is carried out by water vapor activation and/or alkali activation.

11. The manufacturing method according to claim 9, wherein the treatment is carried out under an oxygen atmosphere prior to carrying out the activation treatment.

12. The manufacturing method according to claim 9, wherein the starting material of the fibrous active carbon is polyacrylonitrile.

13. A method for manufacturing a fibrous active carbon, comprising a stage of spinning a mixture substantially made of a thermoplastic resin and a starting material for

a fibrous active carbon, and forming a precursor fiber, a stage of subjecting the precursor fiber to a stabilization treatment, stabilizing the thermoplastic carbon precursor in the precursor fiber, and forming a stabilized precursor fiber, a stage of removing the thermoplastic resin from the stabilized precursor fiber, and forming a fibrous carbon precursor, a stage of subjecting the fibrous carbon precursor to a carbonization or graphitization treatment, and obtaining a carbon fiber, and a stage of activating the resulting carbon fiber, and obtaining a fibrous active carbon.

14. The manufacturing method according to claim 13, wherein the activation treatment is carried out by water vapor activation and/or alkali activation.

15. The manufacturing method according to claim 13, wherein the starting material of the fibrous active carbon is polyacrylonitrile.

16. The manufacturing method according to claim 13, wherein the starting material of the fibrous active carbon is a pitch.

17. The manufacturing method according to claim 13, wherein the pitch is a mesophase pitch.

18. A method for manufacturing a material for an electrode for a fuel cell, comprising a treatment of immersing the fibrous active carbon according to claim 1

in CO_2 in the supercritical state together with a metal complex, followed by burning.

19. The manufacturing method according to claim 18, wherein the metal ion of the metal complex is an ion of at least one metal selected from the group consisting of platinum, rhodium, ruthenium, iridium, palladium, and osmium.

20. The manufacturing method according to claim 18, wherein the temperature of CO_2 in the supercritical state is 32°C or more, the pressure falls within a range of 7.5 to 50 MPa, and the immersion treatment time falls within a range of 0.3 to 10 hours.

21. The manufacturing method according to claim 18, wherein the burning treatment is carried out under an atmosphere substantially not containing oxygen at 200 to 3500°C.